

Advances in Models of Altruism

(BSC 6932)

In her studies of altruism, Dr. Cassill used ants as surrogates for humans. She studied the survival strategies of ants during floods, famine, destruction of domicile and territorial battles. “Ant wars are gory! Heads roll!” She has over 40 publications in premier science journals in biology and economics and is currently working on a book titled, *Survival of the Misfits*. In this course, Students will compare the assumptions and predictions of six models that attempt to explain the evolution of social behavior including competition, sharing, cooperation, altruism and assassination.



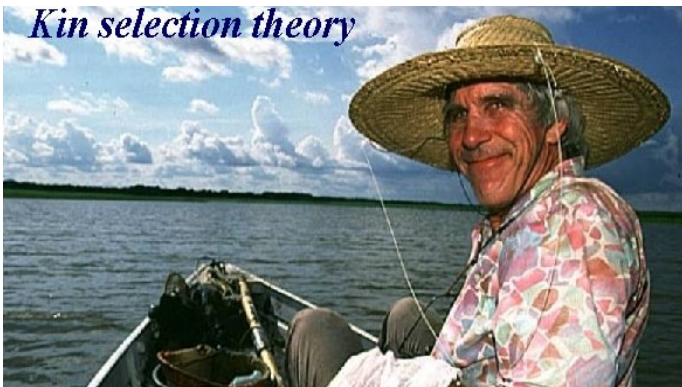
Inclusive fitness

(Hamilton 1964) explains the evolution of altruism by means of kin selection

Replacement fitness

(Cassill 2019) explains the evolution of altruism by means of natural selection

Kin selection theory



Maternal risk management

